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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,299	11/22/2000	Kerry R. Gaston	206314	3172

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EXAMINER

CALLAHAN, PAUL E

ART UNIT	PAPER NUMBER
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2137

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DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,299

Applicant(s)

GASTON, KERRY R.

Examiner

Paul Callahan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 is/are allowed.
- 6) ☒ Claim(s) 22-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-34 are pending in this application and have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 22-24, and 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (US Patent 5,81,484, Sept. 29, 1998).

As for claims 22, 33, and 34, Smith teaches an optically readable memory (abstract) comprising: at least one obscurable section comprising a photo reactive component, col. 3 lines 25-35, col. 4 lines 30-57, fig. 8, where the photo reactive component is adapted to react to selectively applied optical radiation of the wavelength and power used to read the memory by changing reflectivity or translucence, (col. 4 lines 19-57).

As for claim 23, Smith teaches a photo reactive component that includes u.v. chromophores disposed on a surface of the memory (col. 9 line 44 through col. 10 line 16).

As for claims 24, Smith teaches u.v. chromophores that have been incubated by u.v. radiation rendering them photosensitive to IR radiation (col. 9 line 60 through col. 10 line 16).

As for claim 31, Smith teaches an oxygen bearing material within a reflective layer, in col. 12 col. 1-50.

As for claim 32, Smith teaches an obscuration section that is a ring along the outer circumference of the disk in fig. 8 item 254.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith as applied to claim 22 above, in view of Vasic et al. (US Patent 5,963,536, Oct. 5, 1999).

As for claim 25, Smith teaches all of the limitations of claim 22 upon which claim 25 is dependent, but fails to teach the photo reactive component disposed within a layer of the memory. Vasic teaches the feature of a photo reactive component disposed within a layer of the memory (col. 3 line 45 through col. 4 line 19). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this feature into the system of Smith. It would have been advantageous to do so as this would prevent damage to the photo reactive layer prior to end-user exposure of it to reader device radiation.

As for claim 26, the combination of Smith and Vasic teach all of the limitations of claims 22 and 25, upon which claim 26 depends. Smith additionally teaches u.v. chromophores that have been incubated by u.v. radiation rendering them photosensitive to IR radiation (col. 9 line 60 through col. 10 line 16).

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith as applied to claim 22 above, and Yoshinaga, (US Patent 5,527,650, June 18, 1996).

Smith teaches all of the limitations of claim 22 upon which claims 27 and 28 are dependent, but does not teach a photo reactive component that includes silver soap disposed on the surface of the memory or within a layer of the memory. Yoshinaga et al. Teaches this in col. 37 lines 38-46. Therefore it would have been obvious to one of

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ordinary skill in the art at the time of the invention to have incorporated this feature into the system of Smith.

Smith provides motivation to make this combination in col. 3 lines 10-35 where the advantages to the use of a variety of photochromic materials in general in optical storage devices is discussed.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith as applied to claim 22 above, and Stellato, "Report on The Pacific Rim Conference on Lasers and Electro-Optical Devices (CLEO/Pacific Rim '97) Chiba, Japan, United States Army Research Office: Far East.

Smith teaches all of the limitations of claim 22 upon which claim 29 and 30 depend. However he fails to teach the use of an amorphous semiconductor material as the photo reactive material disposed on or in the memory medium. Stellato does teach this in Sec. 3 Optical Storage and Displays, Hiro Iwasaki; "CD Rewritable Optical Disc" summary. Therefore it would have been desirable to one of ordinary skill in the art at the time of the invention to incorporate this feature into the system of Smith.

Smith provides motivation to make this combination in col. 3 lines 10-35 where the advantages to the use of a variety of photochromic materials in general in optical storage devices is discussed.

Allowable Subject Matter

6. Claims 1-22 are allowed.

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E. Callahan whose telephone number is (703) 305-1336. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse, can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is: (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

4/15/04

Paul Callahan